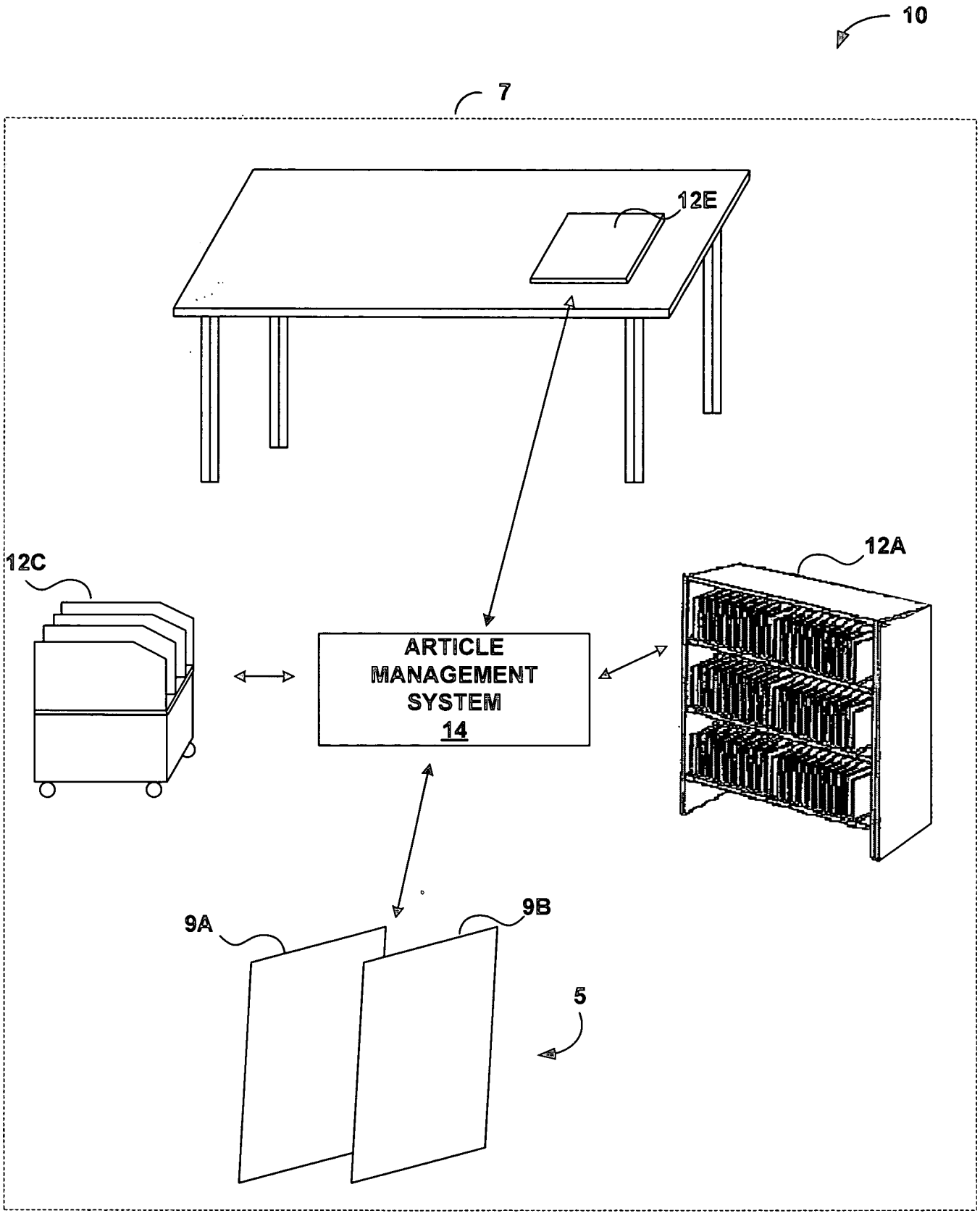
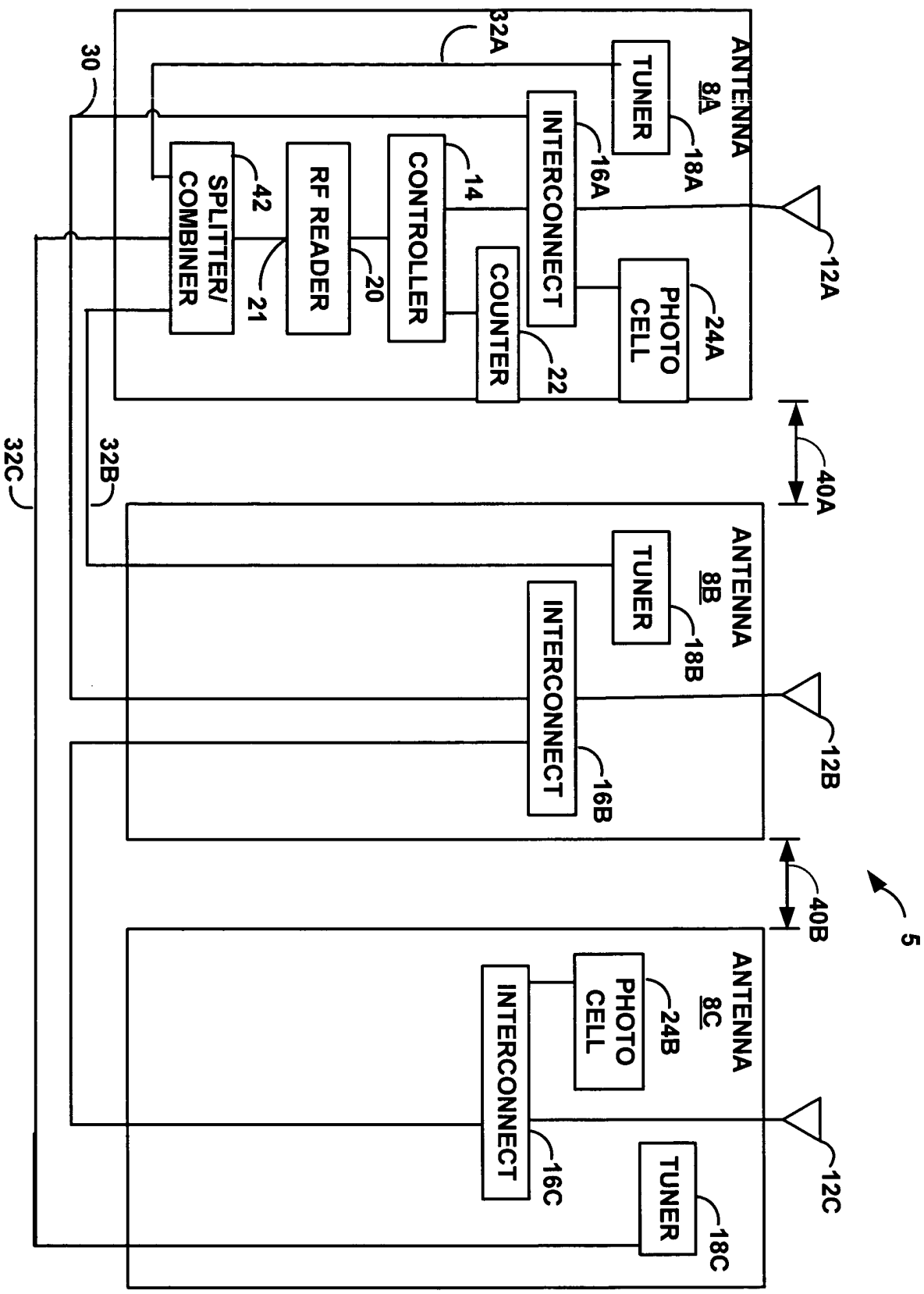



FIG. 1

FIG. 2


ANTENNA
8A
TUNER
18A
INTERCONNECT
16A
PHOTO CELL
24A
CONTROLLER
14
RF READER
20
SPLITTER/ COMBINER
42
21
COUNTER
22
12A
32A
30
40A
ANTENNA
8B
TUNER
18B
INTERCONNECT
16B
12B
32B
40B
ANTENNA
8C
PHOTO CELL
24B
INTERCONNECT
16C
TUNER
18C
12C
32C
5

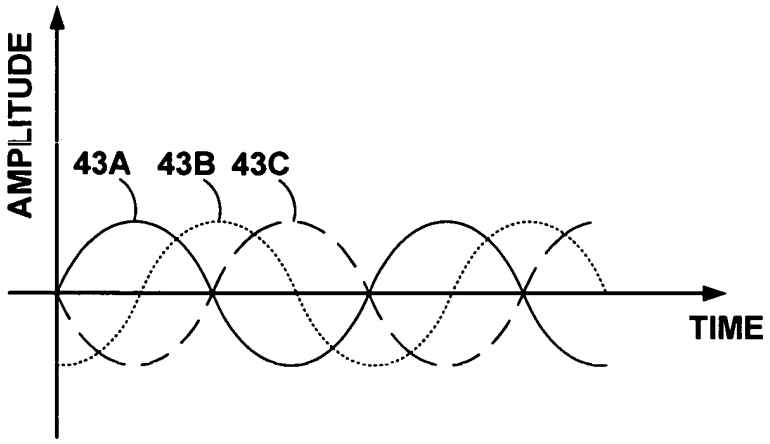



FIG. 3

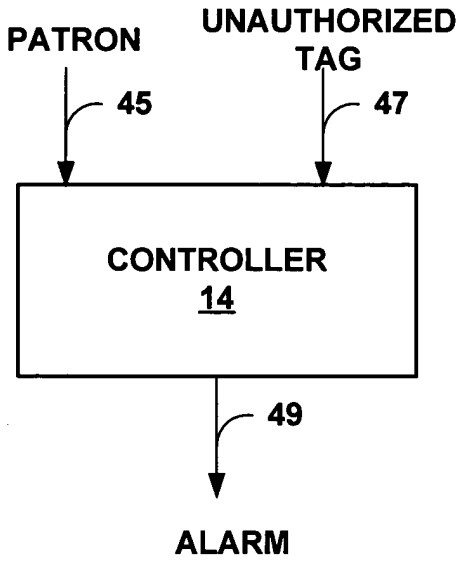



FIG. 4

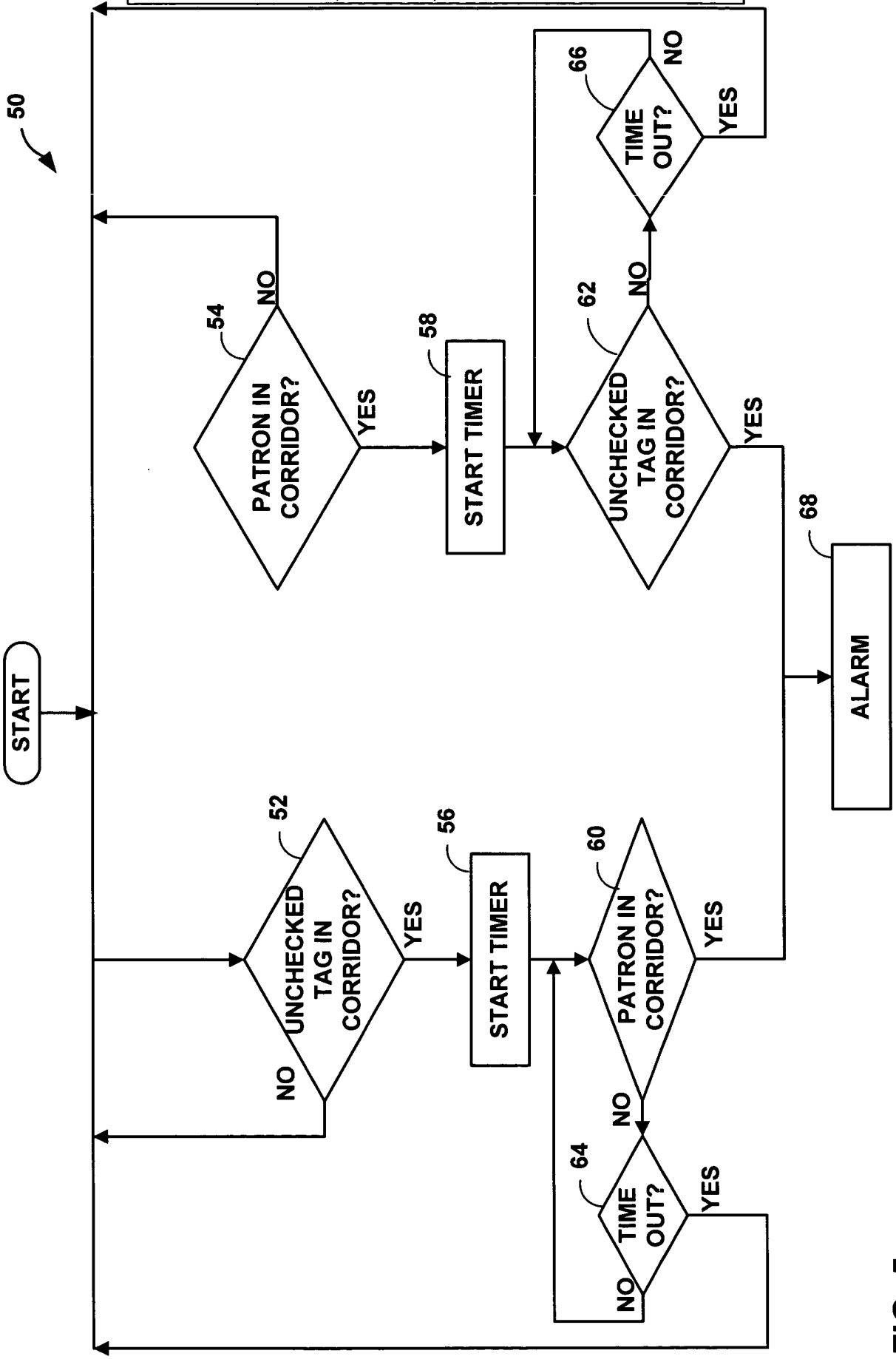

50
START
52
UNCHECKED TAG IN CORRIDOR?
NO
YES
54
PATRON IN CORRIDOR?
NO
YES
56
START TIMER
58
START TIMER
60
PATRON IN CORRIDOR?
NO
YES
62
UNCHECKED TAG IN CORRIDOR?
NO
YES
64
TIME OUT?
NO
YES
66
TIME OUT?
NO
YES
68
ALARM

FIG. 5

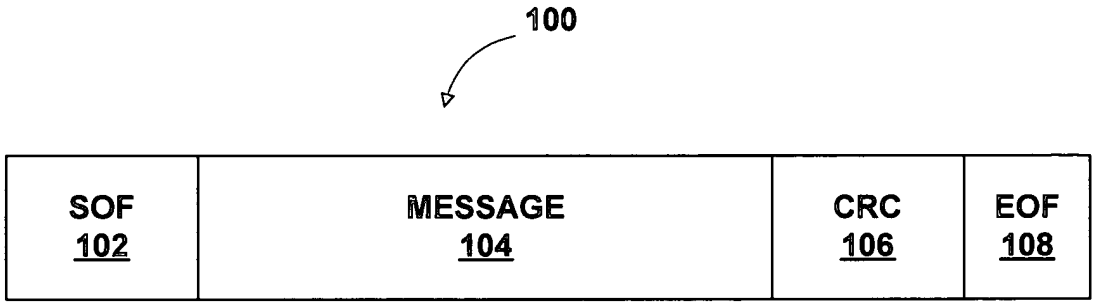

100
SOF
102
MESSAGE
104
CRC
106
EOF
108

FIG. 6

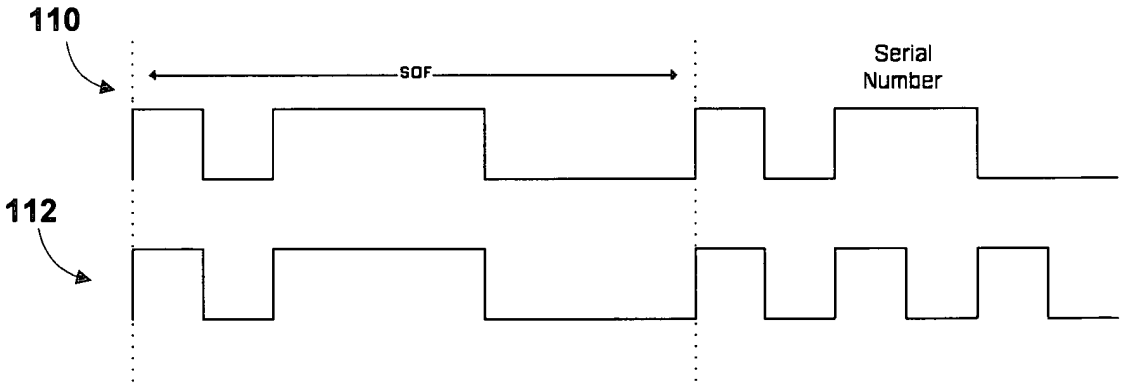

110
SOF
Serial
Number
112

FIG. 7

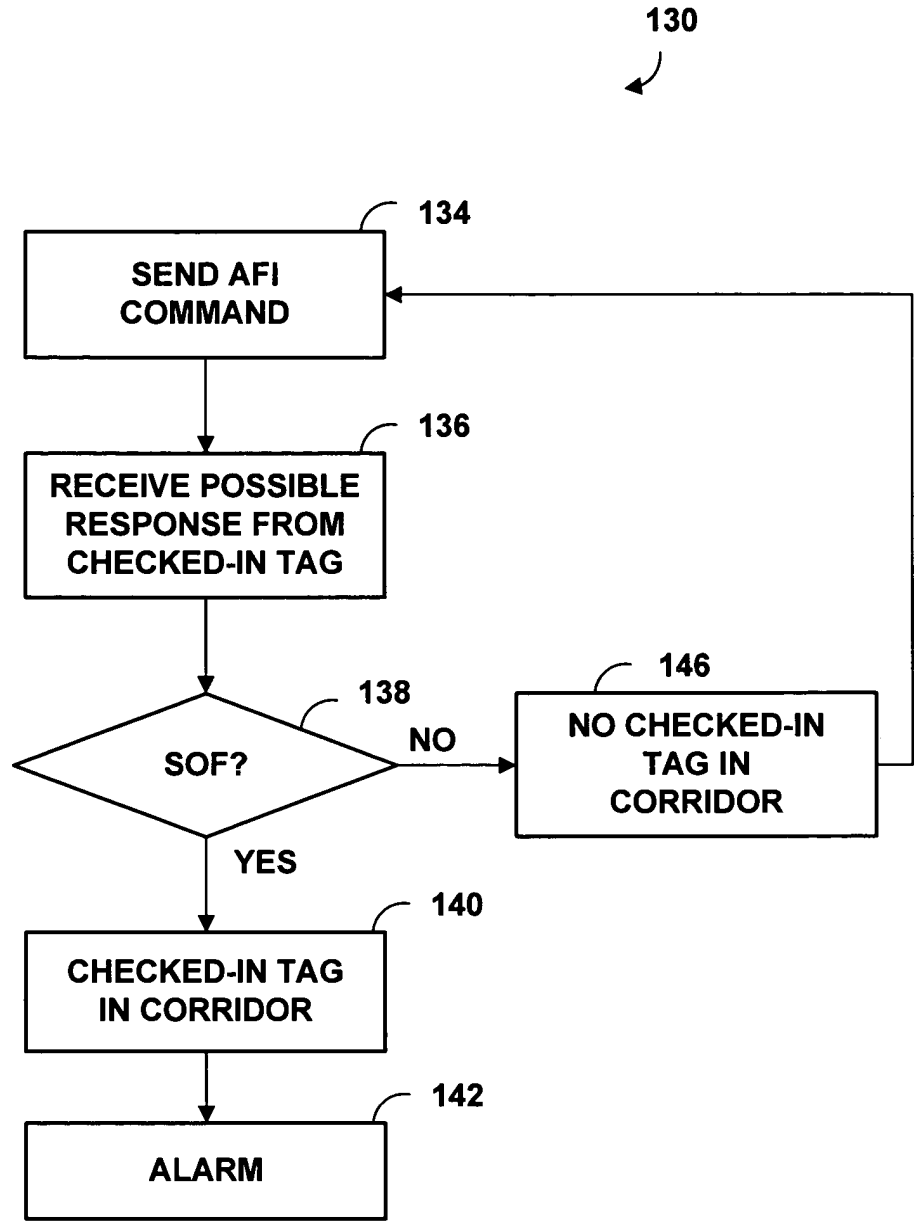

130
134
SEND AFI COMMAND
136
RECEIVE POSSIBLE RESPONSE FROM CHECKED-IN TAG
138
SOF?
NO
146
NO CHECKED-IN TAG IN CORRIDOR
YES
140
CHECKED-IN TAG IN CORRIDOR
142
ALARM

FIG. 8

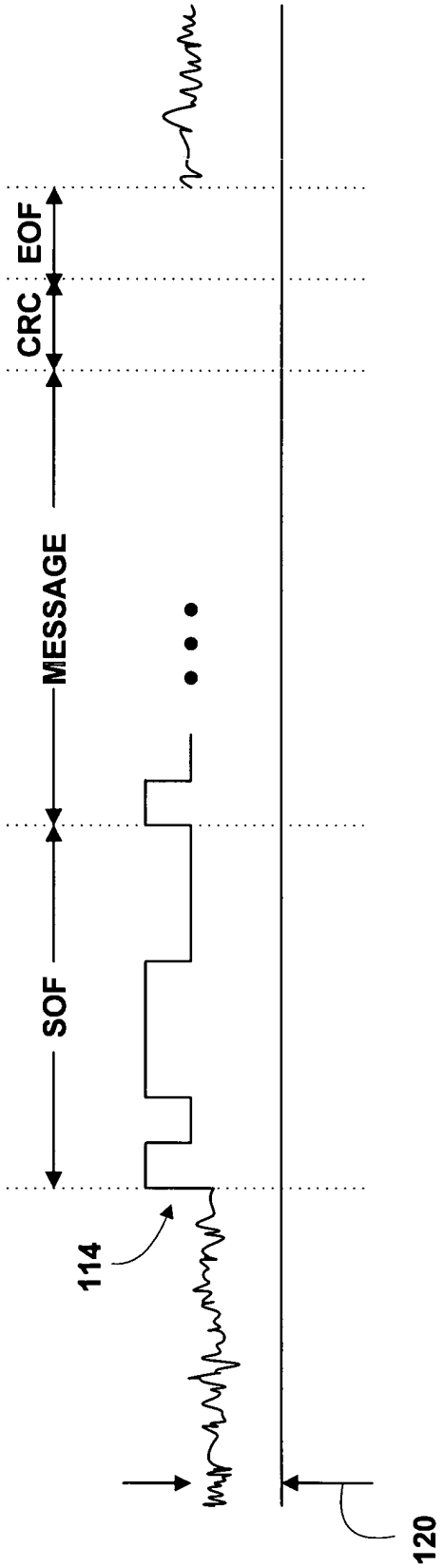



FIG. 9

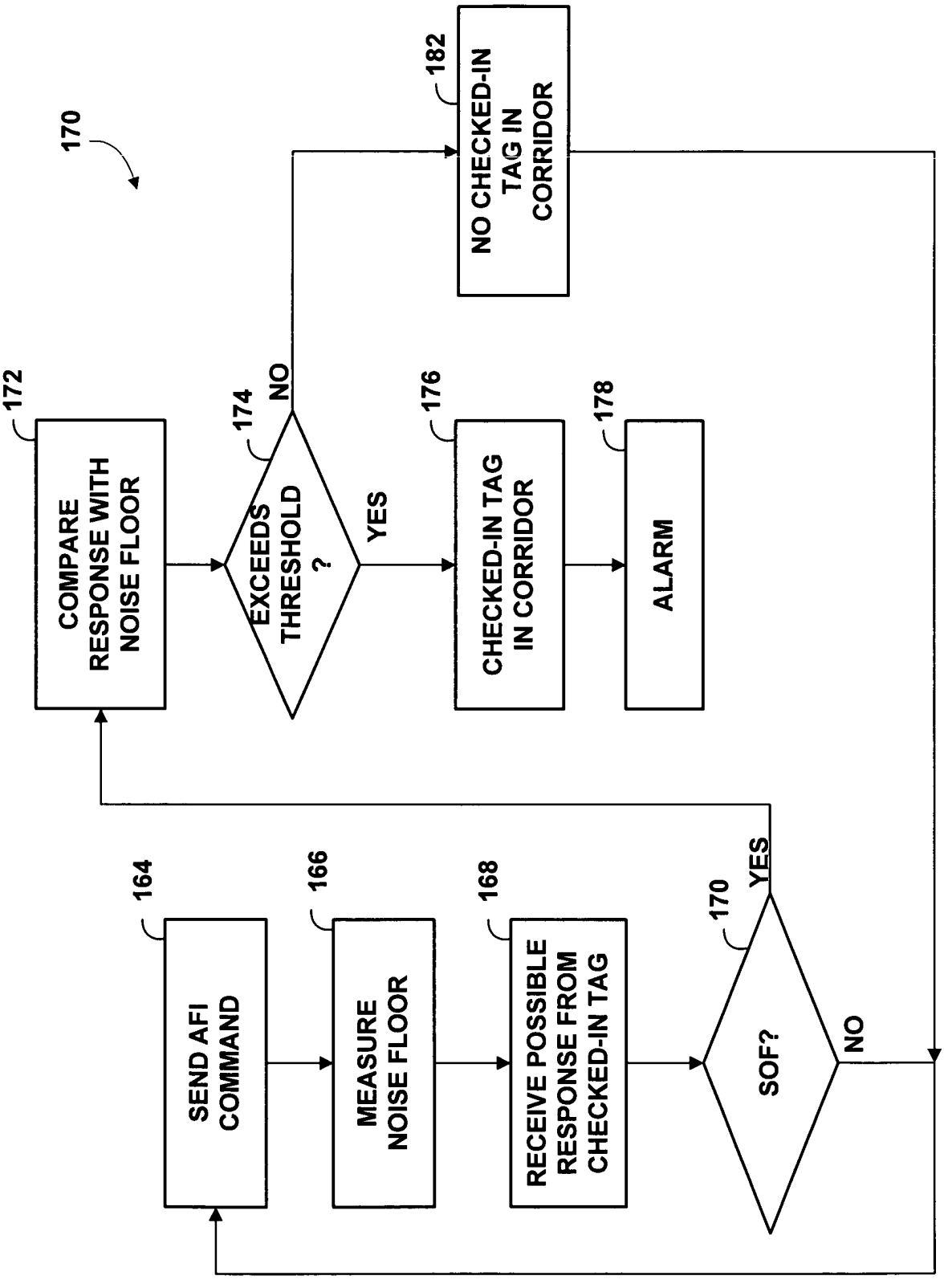

170
182
NO CHECKED-IN TAG IN CORRIDOR
172
COMPARE RESPONSE WITH NOISE FLOOR
174
EXCEEDS THRESHOLD ?
NO
YES
176
CHECKED-IN TAG IN CORRIDOR
178
ALARM
164
SEND AFI COMMAND
166
MEASURE NOISE FLOOR
168
RECEIVE POSSIBLE RESPONSE FROM CHECKED-IN TAG
170
SOF?
YES
NO

FIG. 10

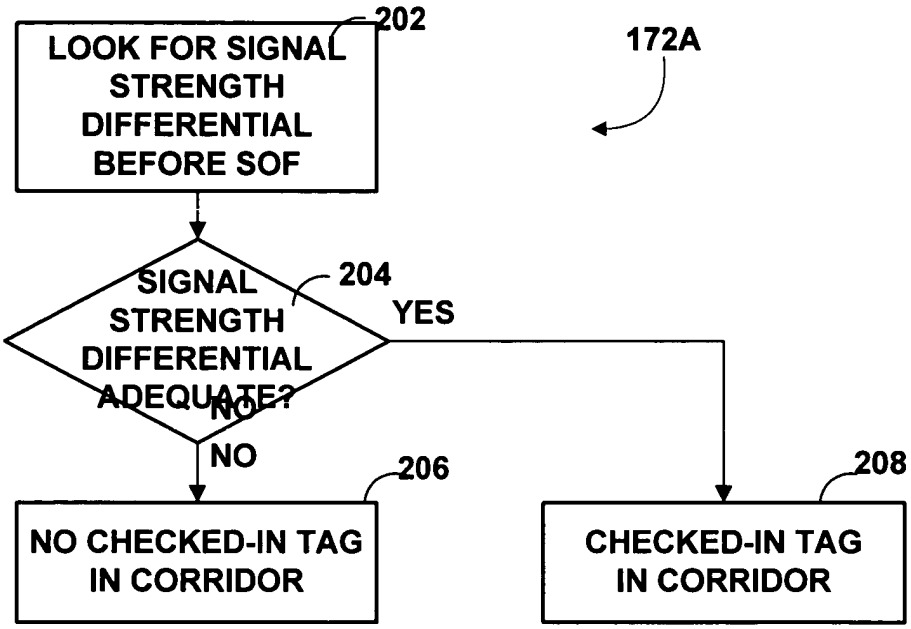



FIG. 11A

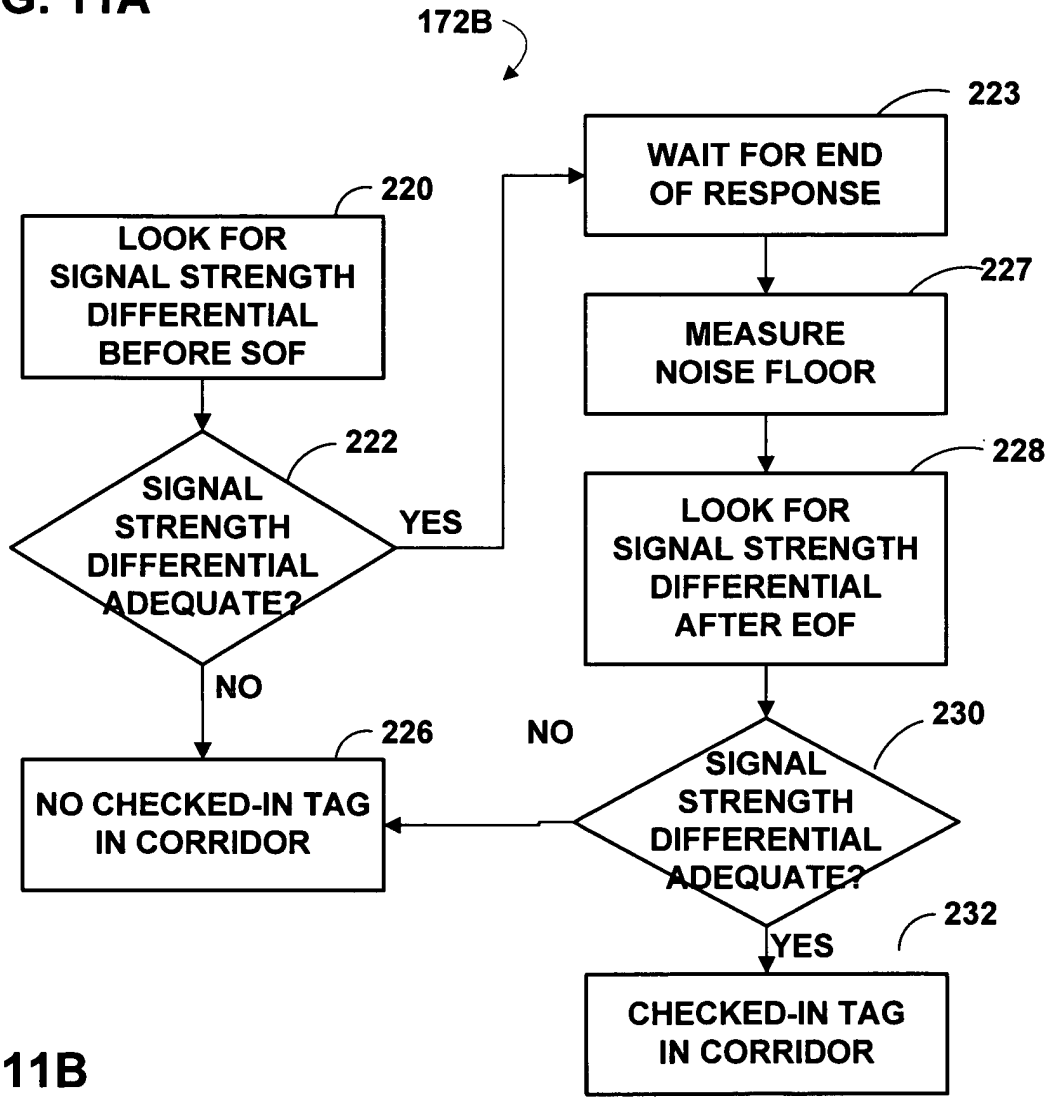



FIG. 11B

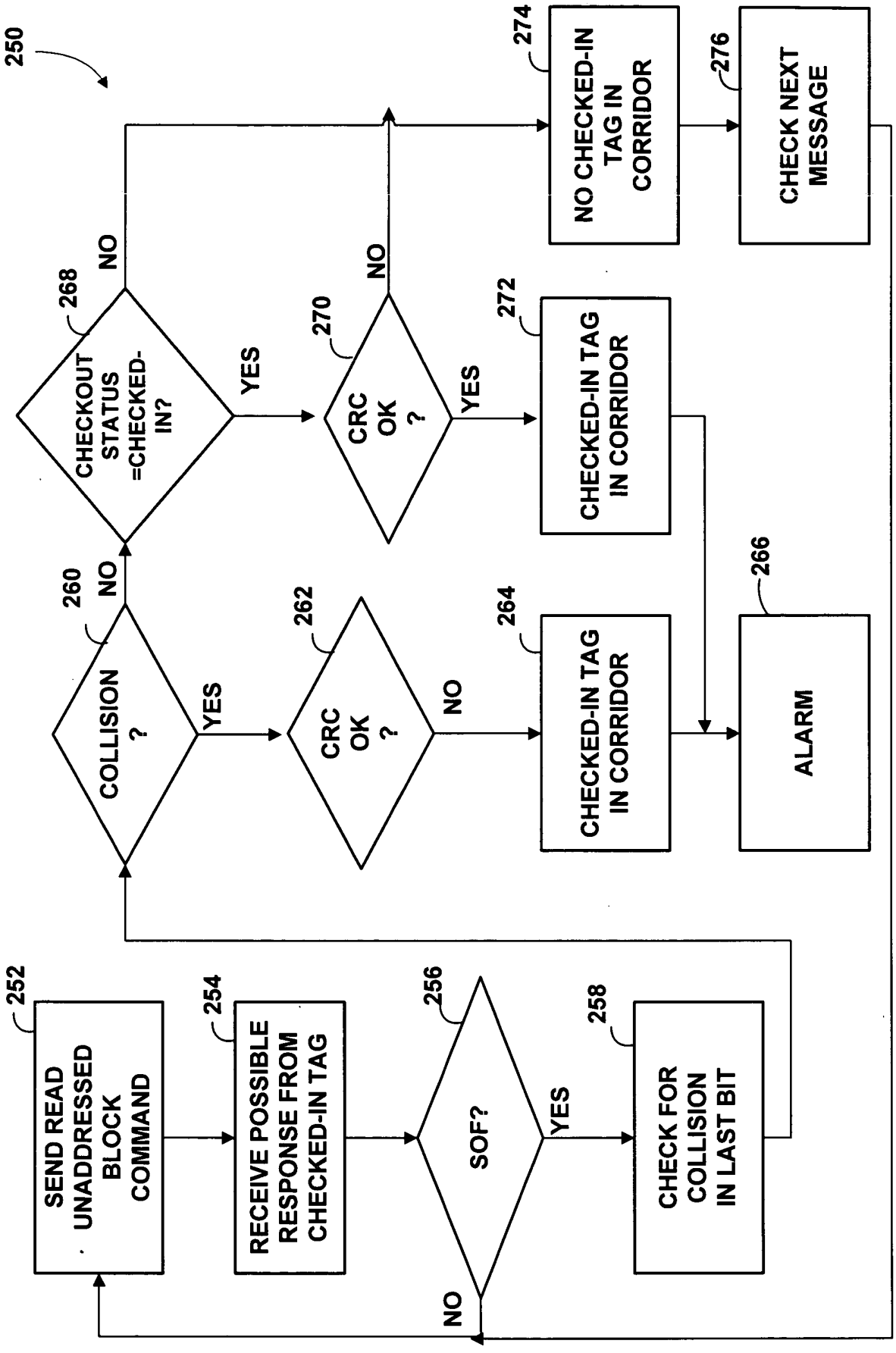

250
252
SEND READ UNADDRESSED BLOCK COMMAND
254
RECEIVE POSSIBLE RESPONSE FROM CHECKED-IN TAG
256
SOF?
YES
NO
258
CHECK FOR COLLISION IN LAST BIT
260
COLLISION ?
YES
NO
262
CRC OK ?
NO
264
CHECKED-IN TAG IN CORRIDOR
266
ALARM
268
CHECKOUT STATUS =CHECKED-IN?
YES
NO
270
CRC OK ?
YES
NO
272
CHECKED-IN TAG IN CORRIDOR
274
NO CHECKED-IN TAG IN CORRIDOR
276
CHECK NEXT MESSAGE

FIG. 12

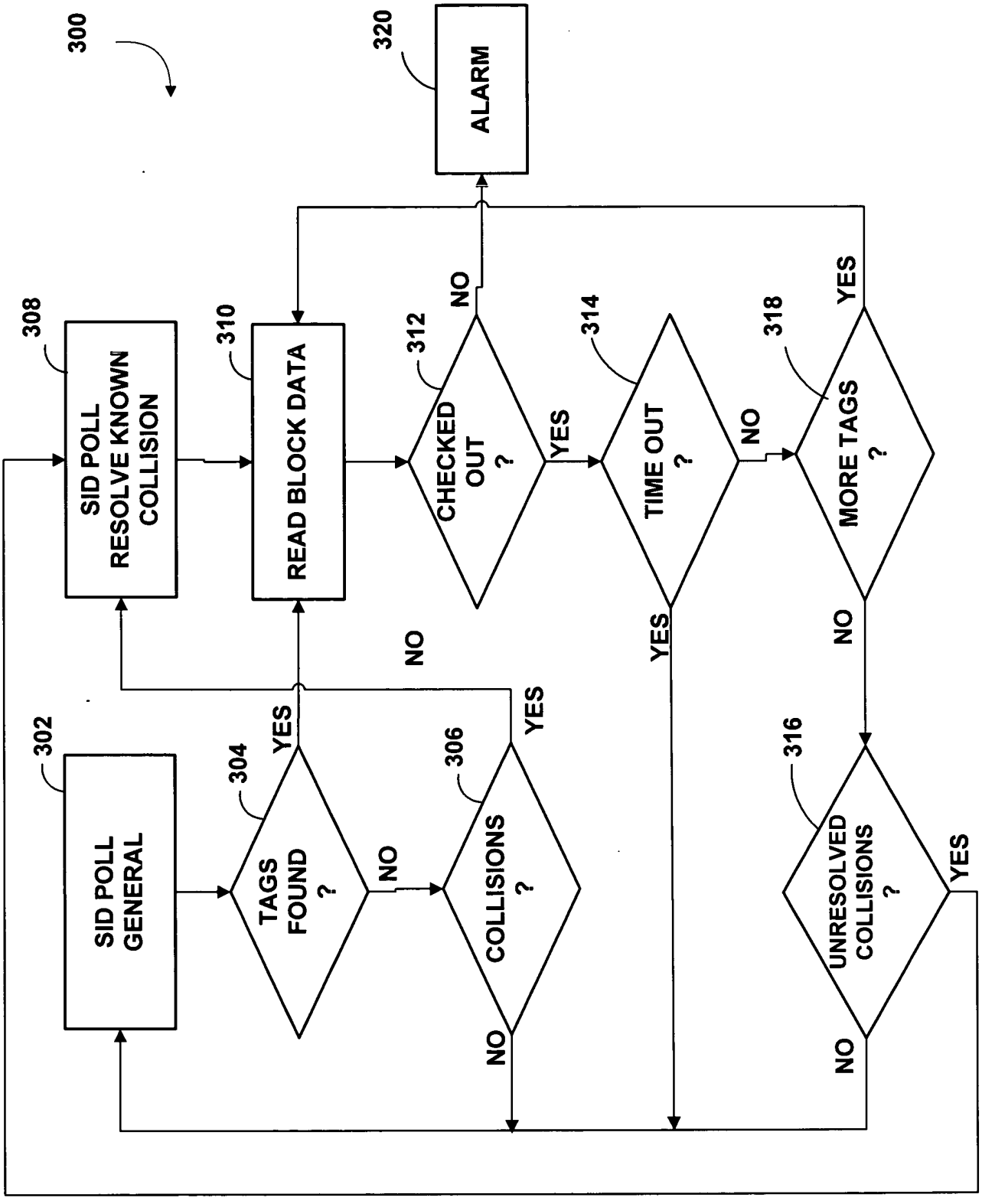

300
320
ALARM
308
SID POLL RESOLVE KNOWN COLLISION
310
READ BLOCK DATA
312
CHECKED OUT ?
314
TIME OUT ?
318
MORE TAGS ?
302
SID POLL GENERAL
304
TAGS FOUND ?
306
COLLISIONS ?
316
UNRESOLVED COLLISIONS ?
NO
YES
NO
YES
NO
YES
NO
YES
NO
YES
NO
YES

FIG. 13

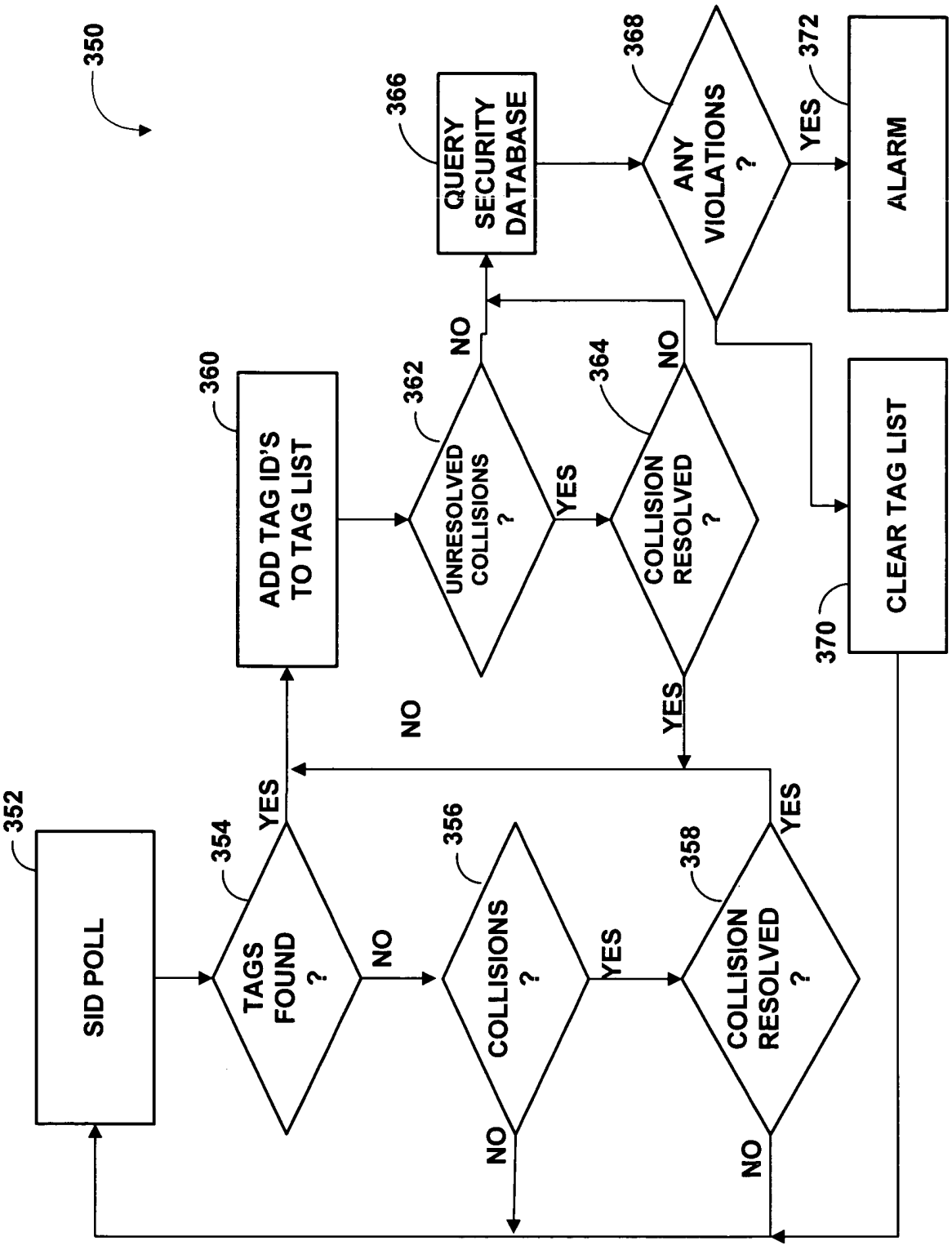

350
352
SID POLL
354
TAGS FOUND ?
YES
NO
356
COLLISIONS ?
YES
NO
358
COLLISION RESOLVED ?
YES
NO
360
ADD TAG ID'S TO TAG LIST
362
UNRESOLVED COLLISIONS ?
YES
NO
364
COLLISION RESOLVED ?
YES
NO
366
QUERY SECURITY DATABASE
368
ANY VIOLATIONS ?
YES
372
ALARM
370
CLEAR TAG LIST

FIG. 14